

darker from near base to just beyond antemedial; outer line outcurved, irregular. Hind wings: discal spot large; outer line outcurved; the termen of both wings rather more heavily scaled. Underneath whiter, the lines duller.

Expanse 27 mm.

Hab. Tuis.

[To be continued.]

XXX.—*A new Species of Tabanus from German East Africa, in the British Museum (Natural History).* By ERNEST E. AUSTEN.

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Tabanus trianguliger, sp. n.

♀.—Length (22 specimens) 13·6 to 16 mm.; width of head 5 to 5·6 mm.; width of front at vertex 0·8 to 1 mm.; length of wing 12 to 13·4 mm.

Dusky species (dorsal surface of abdomen in rubbed specimens more or less cinnamon-rufous), with upper surface of body bearing conspicuous, light-grey markings; front moderately broad and of uniform width; dorsum of thorax longitudinally striped with grey; dorsum of abdomen bearing three longitudinal series of large, smoke-grey or drab grey triangles, so that the ground-colour is reduced to a minimum; wings faintly tinged with drab, almost hyaline; femora pale (greyish fawn-coloured or greyish ochraceous buff), inner surfaces of front pair more or less dark brown.

Head: subcallus pale cream-coloured pollinose; face, jowls, and basioccipital region whitish pollinose and clothed with white hair; occiput light grey pollinose; *front* smoke-grey, clothed with short, yellowish hair, but with a darker, black-haired patch on vertex, and a similar patch in the middle; front (estimated by eye) about four times as long as its breadth at lower extremity, inner margins of eyes bordering it parallel or only very slightly convergent below; *frontal callus* rather large, dark brown, not very shining, roughly quadrate in shape but with its angles (at least the upper pair) rounded off; traces of a second, similarly coloured, elongate (more or less elliptical) callus are usually distinguishable in the centre of the median dark patch; proximal joint of *palpi* greyish cream-buff, clothed with

white hair, terminal joint cream-buff, acuminate, moderately swollen at base, thickly clothed on outer side with appressed, glistening silvery-white hairs, usually mixed with some minute black hairs; first and second joints of *antennæ* greyish ochraceous-buff, clothed with glistening silvery-white hairs (the upper distal angles clothed with minute black hairs), expanded portion of third joint cinnamon-rufous or ochraceous-rufous, often more or less brownish or dark brown towards distal extremity, relatively short, annulate portion of third joint clove-brown, relatively long. *Thorax*: dorsum dark brown (in rubbed specimens appearing more or less slate-grey), marked with five light-grey, partly yellowish-, partly whitish-haired longitudinal stripes; anterior and lateral borders of dorsum also grey; outer surface of each postalar callus, and a narrow area immediately in front of this above base of wing, clothed with white hair; median dorsal grey stripe very narrow, starting on front margin but terminating before reaching prescutellar groove; admedian dorsal grey stripes broad and entire, starting on front margin and meeting at tip of scutellum, which their distal extremities encircle; lateral grey stripe on each side short, extending only from outer extremity of transverse suture to postalar callus; dark stripes between grey stripes clothed with blackish hair; distal extremity of scutellum cinnamon-rufous or ferruginous; swelling in depression at each end of transverse suture drab-grey; pleuræ and pectus light grey, clothed with whitish hair, upper portion of mesopleuræ drab-grey, clothed partly with whitish, partly with blackish or black hair. *Abdomen*: tergite of first segment with a large drab grey patch on each side, and on hind margin in middle line with a small, somewhat triangular or transversely elongate spot, similarly coloured and clothed with yellowish hair; in the centre of the segment is a dark brown blotch (somewhat greyish in front, where it projects from beneath the scutellum) extending to the hind margin; the distal edge of this blotch is indented by the median light spot or triangle already described, and its sides are concave; each of the lateral drab-grey patches bears an oblique streak or patch of minute black hairs, extending outwards towards the posterior angle; tergites of second to fifth segments inclusive each bearing three large drab-grey triangles, arranged in a transverse row (thus forming also three longitudinal series), resting on the hind margin, where they are usually though not always connected, and extending to the front margin; the outer triangles are right-angled or obtuse-angled, the right angles or obtuse angles being the

inner ones on the hind margins of the segments; those of the median series are acute-angled, though their apices are truncate and, in the case of the median triangles on the second and third segments, usually elongate; the sides of the median triangles on the second and third segments are also more or less concave; lateral margins of second and following segments, which cut off the outer angles of the outer series of triangles, drab-grey or buff; tergite of sixth segment with more or less distinct traces of the three triangles seen on preceding segments; basal angles of tergite of second segment drab-grey; basal angles of tergite of first segment, and lateral margins of this and of the five following tergites, clothed with whitish hair; all drab-grey triangles clothed with minute, appressed, yellowish hairs; intervening dark brown or mummy-brown markings clothed with minute, appressed, black hairs; tergite of seventh segment clove-brown (its sides and hind border buff), clothed with black hairs, which at each lateral extremity are usually mixed with yellowish hairs; venter greyish salmon-coloured, when viewed obliquely from behind usually with traces of a narrow, dark, interrupted, median, longitudinal stripe, ventral scute of penultimate segment mouse-grey, that of terminal segment slate-grey, hind margins of ventral scutes of second to sixth segments inclusive cream-coloured; ventral scutes of second to sixth segments inclusive clothed with appressed yellowish hairs, which in centre of ventral scute of sixth segment are mixed with longer black hairs, a few longer black hairs sometimes also present in centre of ventral scute of fifth segment; ventral scute of seventh (terminal) segment clothed as usual with coarse, erect, black hairs.

Wings: veins dark brown; stigma pale and inconspicuous, usually faintly raw-umber-coloured. *Squamæ*: alar pair of same colour as wing-membrane, but more opaque, their borders mouse-grey; thoracic pair cream-buff, their borders somewhat deeper in colour. *Halteres*: knobs yellowish cream-coloured, more or less buff or orange-buff towards base, stalks buff or cream-buff. *Legs*: coxæ grey, clothed with white hair; femora and tibiæ clothed with white or silvery-white hair, except inner surfaces of front femora and distal extremities of front tibiæ, which are clothed with black hair; tibiæ buff or ochraceous-buff, distal extremities of front pair, to a greater extent on inner than on outer surface, dark brown, front pair also narrowly mouse-grey at extreme base; front tarsi clove-brown, second, third, and fourth joints somewhat expanded; middle tarsi dark brown; hind

tarsi mummy-brown, last joint and tips of the three preceding joints dark brown.

German East Africa: type and eight other specimens (para-types) from a water-hole in the Usangu District, 26.xi.1910, and two additional specimens from the Uhehe District, 3000 to 3500 ft., 22-27.xi.1910 (*S. A. Neave*: presented by the Entomological Research Committee). In addition to the foregoing the following material, in possession of the Entomological Research Committee and also collected by Mr. S. A. Neave, has been studied: one para-type from the Usangu District, and ten other specimens from the Uhehe District—remaining data in each case as before.

In the shape of its frontal callus and upper frontal callus, as also in that of the terminal joint of its palpi, *Tabanus trianguliger* shows some affinity to *T. pallidifacies*, Surcouf, which hitherto has been found only in the (British) East Africa Protectorate. Apart, however, from its very different *facies*, due to the development of the grey abdominal markings into a triple series of broad triangles, as described above, *T. trianguliger* is distinguishable from *T. pallidifacies* by, among other characters, its front being distinctly narrower, and by the inner margins of the eyes bordering it being more regularly parallel, instead of somewhat divergent above. From *T. distinctus*, Ricardo, *T. trianguliger*, apart from its abdominal markings, may be distinguished at once by its broader front, and differently shaped (less elongate) frontal callus. From the *variatus*-form of *T. taniola*, Pal. de Beauv., the new species, apart from the greater development of its abdominal triangles, is distinguishable by the shape of its frontal callus and of the third joint of its antennæ, as also by its pale femora. It is scarcely necessary to add that in the foregoing comparisons the female sex is alone considered.

XXXI.—On a new Species of Oligoneuria (Ephemeridæ)
from British East Africa. By Rev. A. E. EATON.

Oligoneuria dobbsi, sp. n.

Adult (dried) ♀.—Wings transparent light blackish grey, with a faint dull violet-purple gloss and intense sepia-brown longitudinal neuration; the cross-veinlets not bordered